

CLAIMS

What is claimed is:

1. A method for populating a database, the method comprising:

providing a database having a schema;

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inferring from the schema dependencies among a fact table and related dimension tables; and

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inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables.

2. The method of claim 1 wherein inferring dependencies further comprises:

selecting from metadata describing a schema for the database expressions of dependencies; and

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inserting the expressions of dependencies into a dependency list.

3. The method of claim 1 wherein inserting rows of data further comprises:

determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table; and

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for each foreign key for which related dimension data does not exist, inserting

a row of dimension data into a dimension table related to the fact table through the foreign key.

4. The method of claim 1 wherein inserting rows of data further comprises:

determining whether related dimension data exists for each foreign key in each row of data inserted into a first dimension table; and

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for each foreign key for which related dimension data does not exist, inserting a row of dimension data into a second dimension table related to the first dimension table through the foreign key.

5. The method of claim 1 wherein inserting rows of data further comprises:

reading the rows of data from a first database, the first database comprising dependencies among tables in the database; and

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inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database.

6. The method of claim 1 wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in the database before a second record in a second table may be inserted in the database.

7. A system for populating a database, the system comprising:
- means for providing a database having a schema;
- 5 means for inferring from the schema dependencies among a fact table and related dimension tables; and
- means for inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables.
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8. The system of claim 7 wherein means for inferring dependencies further comprises:
- means for selecting from metadata describing a schema for the database
- 5 expressions of dependencies; and
- means for inserting the expressions of dependencies into a dependency list.
9. The system of claim 7 wherein means for inserting rows of data further comprises:
- means for determining whether related dimension data exists for each foreign
- 5 key in each row of data inserted into the fact table; and
- for each foreign key for which related dimension data does not exist, means for inserting a row of dimension data into a dimension table related to the fact table through the foreign key.

10. The system of claim 7 wherein means for inserting rows of data further comprises:

means for determining whether related dimension data exists for each foreign
5 key in each row of data inserted into a first dimension table; and

for each foreign key for which related dimension data does not exist, means
for inserting a row of dimension data into a second dimension table related to
the first dimension table through the foreign key.

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11. The system of claim 7 wherein means for inserting rows of data further comprises:

means for reading the rows of data from a first database, the first database
5 comprising dependencies among tables in the database; and

means for inserting rows of data into a second database, the second database
comprising at least the same dependencies as in the first database.

- 10 12. The system of claim 7 wherein a dependency comprises a rule for the
database, enforced by a database management system, that a first record in a
first table must exist in the database before a second record in a second table
may be inserted in the database.

13. A computer program product for populating a database, the computer program product comprising:

a recording medium;

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means, recorded on the recording medium, for providing a database having a schema;

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means, recorded on the recording medium, for inferring from the schema dependencies among a fact table and related dimension tables; and

means, recorded on the recording medium, for inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables.

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14. The computer program product of claim 13 wherein means for inferring dependencies further comprises:

means, recorded on the recording medium, for selecting from metadata describing a schema for the database expressions of dependencies; and

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means, recorded on the recording medium, for inserting the expressions of dependencies into a dependency list.

15. The computer program product of claim 13 wherein means for inserting rows of data further comprises:

5 means, recorded on the recording medium, for determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table; and

10 for each foreign key for which related dimension data does not exist, means, recorded on the recording medium, for inserting a row of dimension data into a dimension table related to the fact table through the foreign key.

16. The computer program product of claim 13 wherein means for inserting rows of data further comprises:

5 means, recorded on the recording medium, for determining whether related dimension data exists for each foreign key in each row of data inserted into a first dimension table; and

10 for each foreign key for which related dimension data does not exist, means, recorded on the recording medium, for inserting a row of dimension data into a second dimension table related to the first dimension table through the foreign key.

17. The computer program product of claim 13 wherein means for inserting rows of data further comprises:

5 means, recorded on the recording medium, for reading the rows of data from a first database, the first database comprising dependencies among tables in the database; and

10 means, recorded on the recording medium, for inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database.

18. The computer program product of claim 13 wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in the database before a second record in a second table may be inserted in the database.